

CLAIMS

What is claimed as new and desired to be protected by Letters Patent of the United States is:

1. A wireless apparatus for processing customer orders comprising;
5 a communications transceiver for wirelessly communicating with mobile customers;
a control circuit coupled to said transceiver for controlling said transceiver to establish a temporary communication link with a mobile customer and for receiving a wireless order from said customer, said control circuit causing
10 said received order to be processed to fulfillment; and
a fulfillment station where a customer completes a processed order.
2. An apparatus as in claim 1 further comprising a display device, said control circuit causing said display device to indicate the locations of customers communicating with said transceiver.
- 15 3. An apparatus as in claim 1 further comprising a display device, said control circuit causing said display device to indicate the status of orders placed by customers communicating with said transceiver.
4. An apparatus as in claim 3 wherein said control circuit arranges customer orders in a queue and operates said display device to display the queue
20 of customer orders.
5. An apparatus as in claim 1 wherein said control circuit communicates customer order information to an inventory control system.

6. An apparatus as in claim 4 wherein said customer orders are arranged in a first-in first-out queue.

7. An apparatus as in claim 4 wherein said customer orders are arranged in a queue based on customer distance from a fulfillment station.

5 8. An apparatus as in claim 4 wherein said customer orders are arranged in a queue based on time to fulfillment.

9. An apparatus as in claim 4 wherein said customer orders are arranged in a queue based on customer priority.

10 10. An apparatus as in claim 1 wherein said wireless communication link is a LAN IEEE 802.11 compliant communication link.

11. An apparatus as in claim 1 wherein said wireless communication link is a Bluetooth™ compliant communications link.

12. An apparatus as in claim 1 wherein said control circuit causes said transceiver to transmit menu items to a wireless customer.

15 13. An apparatus as in claim 1 wherein said control circuit causes said transceiver to transmit promotional specials to a wireless customer.

14. An apparatus as in claim 12 wherein said menu items are transmitted upon the establishment of a communications link with a customer.

20 15. An apparatus as in claim 14 wherein said menu items are transmitted until a customer completes an order.

16. An apparatus as in claim 13 wherein said promotional specials are transmitted upon the establishment of a communications link with a customer.

17. An apparatus as in claim 16 wherein said promotional specials are transmitted until a customer completes an order.

18. An apparatus as in claim 1 further comprising a speech recognition unit for receiving speech orders from a customer and converting
5 them to processable information, said control circuit being coupled to said speech recognition unit to receive and process said processable information.

19. An apparatus as in claim 1 further comprising a speech synthesis unit, said control circuit operating said speech synthesis unit to provide speech information associated with customer orders which is transmitted by said
10 transceiver to a customer.

20. An apparatus as in claim 18 wherein said control circuit converts said processable information into a customer order of an ordering system.

21. An apparatus as in claim 20 further comprising a display device, said control circuit causing said display device to display the entry of a customer
15 order into said ordering system.

22. An apparatus as in claim 1 further comprising an agent station coupled to said control circuit for monitoring an order received from a customer.

23. An apparatus as in claim 22 wherein said agent station further comprises a display device for displaying the status of a customer order.

24. An apparatus as in claim 22 wherein said agent station includes an audio circuit which allows for audio communication with a selected customer.

25. An apparatus as in claim 1 further comprising an agent station coupled to said control circuit for adjusting an order received from a customer.

26. An apparatus as in claim 25 wherein said agent station is provided at a vendor transaction facility which contains said transceiver.

27. An apparatus as in claim 25 wherein said agent station is provided at a vendor transaction facility which does not contain said transceiver.

5 28. An apparatus as in claim 1 wherein said control circuit computes a monetary total for an entered order and causes said transceiver to transmit said monetary total to a customer.

29. An apparatus as in claim 28 wherein said monetary total is transmitted as a displayable amount.

10 30. An apparatus as in claim 28 wherein said monetary amount is transmitted as an audible amount.

31. An apparatus as in claim 1 wherein said control circuit processes payment information received through said transceiver.

15 32. An apparatus as in claim 31 wherein said payment information comprises a credit card information.

33. An apparatus as in claim 31 wherein said payment information comprises debit card information.

34. An apparatus as in claim 31 wherein said payment information comprises prepaid account information.

20 35. An apparatus as in claim 31 wherein said payment information comprises information for billing a pre-existing customer account.

36. An apparatus as in claim 35 wherein said customer account is a wireless service account.

37. An apparatus as in claim 31 wherein said payment information includes information authorizing a charge to a customer account and a customer
5 verification code for verification of the authorization.

38. An apparatus as in claim 31 wherein said payment information comprises a customer network account.

39. An apparatus as in claim 31 wherein said payment information comprises a customer telephone account.

40. An apparatus as in claim 1 wherein said control circuit causes said
10 transceiver to establish a communications link with a customer within a predetermined distance of a predetermined location.

41. An apparatus as in claim 1 wherein said control circuit determines from customer transmissions an identity of said customer.

42. An apparatus as in claim 1 wherein said control circuit causes said
15 transceiver to transmit order status information to a customer.

43. An apparatus as in claim 24 wherein said agent station displays a plurality of received and pending customer orders.

44. An apparatus as in claim 43 wherein said agent station includes
20 an entry device for selecting a displayed customer order for action.

45. An apparatus as in claim 44 wherein said action includes the transmission of a message from said agent through said transceiver to a customer.

46. An apparatus as in claim 1 wherein said control circuit operates said transceiver to send an audio message to a customer.

47. An apparatus as in claim 1 wherein said control circuit operates said transceiver to send a display message to a customer.

5 48. An apparatus as in claim 1 wherein aid control circuit receives a customer identification transmission from said transceiver, and operates said transceiver to transmit a customer favorites list to said customer.

49. An apparatus as in claim 1 wherein the control circuit receives a customer identification transmission from said transceiver and provides said
10 customer identification information to a customer priority database.

50. An apparatus as in claim 1 wherein the control circuit receives a customer identification transmission from said transceiver and provides said customer identification information to a customer loyalty database.

51. An apparatus as in claim 1 wherein said control circuit is
15 operative to establish a secure financial transaction link for processing a received customer transaction amount authorization.

52. An apparatus as in claim 1 wherein said order is an order for goods.

53. An apparatus as in claim 1 wherein said order is an order for
20 services.

54. An apparatus as in claim 1 wherein said control circuit is a distributed processing control circuit which comprises at least two processing units, each processing an aspect of said order.

55. An apparatus as in claim 1 wherein said control circuit is operative to cause the transmission of directions to said fulfillment station to a customer.

56. An apparatus as in claim 55 wherein said control circuit causes
5 said transmission of directions in response for a request for directions received from a customer.

57. An apparatus as in claim 1 wherein said transceiver includes a plurality of communications channels which enable said transceiver and control circuit to simultaneously communicate with a plurality of customers.

10 58. An apparatus as in claim 57 further comprising a display device, said control circuit operating said display device to simultaneously display a plurality of pending customer orders.

59. An apparatus as in claim 58 wherein said control circuit arranges
15 said plurality of pending customer orders in a queue and displays said queued orders on said displayed device.

60. An apparatus as in claim 57 further comprising a display device, said control circuit causing said display device to simultaneously display the locations of customers communicating with said apparatus.

20 61. An apparatus as in claim 1 wherein said fulfillment station is a drive-through window.

62. A personal wireless communications apparatus for wirelessly placing a customer order, said communications apparatus comprising:

a display device for displaying order information;

an input device for entering order information;

a wireless transceiver for transmitting and receiving order information when said apparatus is within wireless communications range of a vendor facility; and

- 5 a control circuit for operating said transceiver to establish a temporary wireless communications link with a vendor within said communications range and for exchanging order information with said vendor, said control circuit operating said display device to display customer order information.

63. An apparatus as in claim 62 wherein said control circuit stores
10 information regarding available vendors in defined areas, said control circuit being responsive to an input indicating a location of said apparatus to display on said display device those vendors which are in an area where said apparatus is located.

64. An apparatus as in claim 63 further comprising a positioning
15 indication system for providing location information of said apparatus to said control unit.

65. An apparatus as in claim 62 wherein said control circuit is responsive to an input at said input device to display on said display device a list of types of services for a customer to choose from.

20 66. An apparatus as in claim 62 wherein said control circuit is responsive to an input at said input device to display on said display device a list of types of products for a customer to choose from.

67. An apparatus as in claim 65 wherein said control circuit is responsive to a user selection at said input device of a type of service to further display on said display device those vendors which are proximate to said apparatus which provide said selected services.

5 68. An apparatus as in claim 66 wherein said control circuit is responsive to a user selection at said input device of a type of product to further display on said display device those vendors which are proximate to said apparatus which provide said selected products.

10 69. An apparatus as in claim 67 wherein said control circuit is responsive to a user selection of a vendor which provides said selected service to operate said transceiver to initiate a wireless communication with said selected vendor.

70. An apparatus as in claim 64 wherein said control unit causes said location information to be transmitted to said vendor.

15 71. An apparatus as in claim 70 wherein said control circuit receives and processes directions to said vendor.

20 72. An apparatus as in claim 70 wherein said control circuit is responsive to a user selection of a vendor which provides said selected product to operate said transceiver to initiate a wireless communication with said selected vendor.

73. An apparatus as in claim 62 wherein said control circuit operates said transceiver to send customer identification information to said vendor as part of said order information.

74. An apparatus as in claim 62 wherein said control circuit operates said transceiver to send payment information to said vendor as part of said order information.

5 75. An apparatus as in claim 62 wherein said control circuit operates said transceiver to send order selections to said vendor as part of said order information.

76. An apparatus as in claim 62 wherein said control circuit operates said display device to display a menu of available items received from a vendor.

10 77. An apparatus as in claim 62 wherein said control circuit operates said display device to display an amount due for an order, which is received from a vendor.

78. An apparatus as in claim 61 wherein said control circuit is operative to send a request for directions to said vendor facility.

15 79. An apparatus as in claim 78 wherein said control circuit is operative to indicate to a customer received directions to said vendor facility.

80. A wireless apparatus at a vendor facility comprising:

a communications transceiver for wirelessly communicating with potential customers in the vicinity of said vendor facility who also have wireless communications devices;

20 a control circuit coupled to said transceiver for causing said transceiver to attempt to establish a temporary wireless communications link with said potential customers and if a communications link is established for transmitting an order solicitation message to a potential customer over said established link.

81. A wireless apparatus as in claim 80 wherein said control circuit is located at a vendor facility containing said transceiver.

82. A wireless apparatus as in claim 80 wherein said control circuit is located at a vendor facility remote from a location of said transceiver.

5 83. A wireless apparatus as in claim 82 wherein said control circuit is connected to said transceiver through a network.

84. A method for processing customer orders at a vendor transaction facility comprising:

 establishing a temporary wireless communication at said vendor
10 transaction facility with a mobile customer;

 receiving a wireless order from said customer; and

 processing said order to fulfillment at a customer accessed vendor fulfillment station.

85. A method as in claim 84 further comprising receiving and
15 processing a plurality of orders from a plurality of mobile customers and displaying at said vendor facility the locations of said plurality of customers.

86. A method as in claim 85 further comprising arranging the orders from said plurality of customers in a displayable queue at said vendor facility.

20 87. A method as in claim 86 wherein said queue is a first-in first-out queue.

88. A method as in claim 86 wherein said queue is based on customer distance from said fulfillment station.

89. A method as in claim 86 wherein said queue is based on time to order fulfillment.

90. A method as in claim 86 wherein said queue is based on an assigned customer priority.

5 91. A method as in claim 84 further comprising transmitting menu items to said mobile customer.

92. A method as in claim 84 further comprising transmitting promotional specials to said mobile customers.

10 93. A method as in claim 84 further comprising monitoring the status of a customer order at an agent station.

94. A method as in claim 93 further comprising adjusting an entered order at said agent station.

15 95. A method as in claim 84 further comprising initiating said wireless communication whenever a mobile customer is within a predetermined distance of a predetermined location.

96. A method as in claim 84 further comprising transmitting directions to said fulfillment station to said mobile customer.

97. A method as in claim 96 wherein said directions are transmitted in response to a receipt of a request for directions from a mobile customer.

20 98. A method as in claim 84 further comprising examining a profile for said mobile customer and using information in said profile during the processing of said order.

99. A method as in claim 98 wherein said customer profile contains a list of said mobile customer's favorite items for ordering, said method further comprising sending said favorites list to said mobile customer.

100. A method as in claim 84 further comprising receiving and
5 storing information about said customer in a customer data base.

101. A method as in claim 84 wherein said fulfillment station is a drive-through window.

102. A method of operating a wireless customer communications device comprising:

15 establishing a temporary wireless communications link with a vendor transaction facility when said wireless customer communications device is within a predetermined range of said facility; and

exchanging order information with said vendor transaction facility for fulfillment at a vendor fulfillment station which is accessible by said customer.

103. A method as in claim 102 further comprising:

determining the location of said wireless communications device;

determining from said location those vendors which are within a predetermined range of said location; and

20 establishing said temporary wireless communications link with one of said vendors.

104. A method as in claim 102 further comprising:

displaying a list of available vendors at said wireless communications device; and

establishing said temporary wireless communications link with one of said vendors.

5 105. A method as in claim 102 further comprising transmitting the location of said wireless customer communications device to said vendor facility.

106. A method as in claim 105 further comprising displaying at said wireless customer communications device directions to said vendor facility.

107. A method as in claim 102 wherein said vendor facility includes a
10 drive-through fulfillment station.

108. A method as in claim 102 further comprising displaying a menu of items available at said vendor facility at said wireless customer communications device.